UNIVERSITAS
GADJAH MADA
Korelasi dan Analisis Lintas Beberapa Karakter Hasil Bunga Cosmos sulphureus Cav. pada Kondisi Inokulasi Mikoriza Arbuskular
Syifa Aulia Aninda, Prof. Dr. Ir. Aziz Purwantoro, M.Sc.; Dr. Dyah Weny Respatie, S.P., M.Si.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Agustian, M. Faiza, dan L. Maira. 2011. Respon pertumbuhan Tithonia diversifolia terhadap inokulasi cendawan mikoriza arbuskula (CMA). Jurnal Solum. 8(2): 70–77.

Alfandi, M. T. C., H. Hasbi, dan B. Suroso. 2022. Respon pertumbuhan dan produksi tanaman terung (*Solanum melongena* L.) terhadap pemberian pupuk organik cair azolla (*Azolla pinnata*) dan pupuk P. National Multidisciplinary Sciences. 1(2): 123–137.

Amiri, M. B., M. Jahan, and P. R. Moghaddam. 2022. An exploratory method to determine the plant characteristics affecting the final yield of *Echium amoenum* Fisch. & *C.A.* Mey. under fertilizers application and plant densities. Scientific Reports. 12(1): 1–14.

Anfola, G., A. Moshe, L. Fridman, L. Amrani, O. Rotem, M. Kolot, M. Zeidan, H. Czosnek, and R. Gorovits. 2016. Tomato yellow leaf curl virus infection mitigates the heat stress response of plants grown at high temperatures. Scientific Reports. 6(19715): 1–13.

Aninbon, C., P. Teamkao, K. Buram, T. Kaewnoo, R. Ruttanaprasert, A. Janket, Y.Y. Mon, and P. Kaewtaphan. 2024. Effect of arbuscular mycorrhiza and rhizobium on physiology and yield of peanut under drought conditions. Frontiers in Plant Science. 15: 1–14.

Arini, N., D. W. Respatie, dan S. Waluyo. 2015. Pengaruh takaran SP36 terhadap pertumbuhan, hasil dan kadar karotena bunga *Cosmos sulphureus* Cav. dan *Tagetes erecta* L. di dataran rendah. Jurnal Vegetalika. 4(1): 1–14.

Artamefia, Y., U. Kalsum, dan A. Y. Perkasa. 2025. Respon tanaman kenikir sulfur (*Cosmos sulphureus*) terhadap pemangkasan pada pertumbuhan dan hasil bunga. Jurnal Agroekoteknologi dan Agribisnis. 9(2): 125–142.

Asrar, A. W. A. and K. M. Elhindi. 2011. Alleviation of drought stress of marigold (*Tagetes erecta*) plants by using arbuscular mycorrhizal fungi. Saudi Journal of Biological Sciences. 18(1): 93–98.

Audya, D. T., E. Nurpadila, dan A. Supriyatna. 2023. Inventarisasi dan identifikasi keragaman famili Asteraceae di kawasan UIN Sunan Gunung Djati Bandung. Jurnal Riset Rumpun Ilmu Tanaman. 2(1): 117–130.

Barnette, T. M. 2024. Evaluation of Eriophyid Mite Collection Methods and Environmental Parameters that Affect Populations of *Phyllocoptes fructiphilus*. University of Tennessee, Knoxville. Thesis.

Batista, M. F. and L. A. De Souza. 2017. Flower structure in ten Asteraceae species: considerations about the importance of morpho-anatomical features at species and tribal level. Revista Brasileira de Botanica. 40(1): 265–279.

Benaffari, W., A. Boutasknit, M. Anli, M. Ait-El-Mokhtar, Y. Ait-Rahou, R. Ben-Laouane, H. Ben Ahmed, T. Mitsui, M. Baslam, and A. Meddich. 2022. The native arbuscular mycorrhizal fungi and vermicompost-based organic amendments

UNIVERSITAS
GADJAH MADA
Korelasi dan Analisis Lintas Beberapa Karakter Hasil Bunga Cosmos sulphureus Cav. pada Kondisi Inokulasi Mikoriza Arbuskular
Syifa Aulia Aninda, Prof. Dr. Ir. Aziz Purwantoro, M.Sc.; Dr. Dyah Weny Respatie, S.P., M.Si.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

enhance soil fertility, growth performance, and the drought stress tolerance of quinoa. Plants. 11(3): 1–27.

Boyno, G., Y. R. Danesh, R. Çevik, N. Teniz, S. Demir, O. Calayır, B. Farda, A. Mignini, D. Mitra, M. Pellegrini, R. Porcel, and J. M. Mulet. 2025. Plant-fungus synergy against soil salinity: The cellular and molecular role of arbuscular mycorrhizal fungi. iScience. 28(9): 1–11.

Buriro, N. A., H. R. Memon, A. A. Kaleri, N. A. Buriro, I.A. Jamro, S. Fazal, D.M. Baloch, and S. Ahmed. 2024. Effect of levels of nitrogen and biofertilizers on growth and yield of sunflower (*Helianthus annuus* L.). African Journal of Biological Sciences. 6(15): 13778–13788.

Cai, L., Y. P. Li, Z. X. Wei, X. L. Li, and X. R. Jiang. 2020. Effects of dietary gallic acid on growth performance, diarrhea incidence, intestinal morphology, plasma antioxidant indices, and immune response in weaned piglets. Animal Feed Science and Technology. 261(114391): 1–11.

Carella, P., A. Gogleva, M. Tomaselli, C. Alfs, and S. Schornack. 2018. Phytophthora palmivora establishes tissue-specific intracellular infection structures in the earliest divergent land plant lineage. Proceedings of the National Academy of Sciences of the United States of America. 115(16): E3846–E3855.

Carvalho, S. M. P., E. Heuvelink, J. Harbinson, and O. Van Kooten. 2006. Role of sink-source relationships in *Chrysanthemum* flower size and total biomass production. Physiologia Plantarum. 128(2): 263–273.

Chong, K. Y., H. T. Tan, and R. T. Corlett. 2009. A Checklist of the Total Vascular Plant. *In* Flora of Singapore: Native, Naturalised and Cultivated Species. H. T. W. Tan (*Ed*.). Raffles Museum of Biodiversity Research, National University of Singapore, Singapore.

Christy, A. E. H. P. dan Suprihati. 2023. Hara nitrogen dan kalium terhadap produksi bunga tanaman viola (*Viola tricolor* L.) pada andosol Kopeng. Composite: Jurnal Ilmu Pertanian. 5(2): 67–75.

Del Conte, M.V., P.C. Souza Carneiro, M.D.V. de Resende, F.L. da Silva, and L.A. Peternelli. 2020. Overcoming collinearity in path analysis of soybean [Glycine max (L.) Merr.] grain oil content. PLoS ONE. 15(5): 1–15.

Eddiwal, Saidi, A., E. F. Husin, dan A. Rasyidin. 2018. Pengaruh inokulasi fungi mikoriza arbuskula (FMA) plus organik terhadap pertumbuhan dan produksi jagung pada ultisol. Jurnal Solum. 15(2): 50–59.

Edlinger, A., G. Garland, K. Hartman, S. Banerjee, F. Degrune, P. Garcia-Palacios, S., Hallin, A. Valzano-Held, C. Herzog, J. Jansa, E. Kost, and F. T. Maestre. 2022. Agricultural management and pesticide use reduce the functioning of beneficial plant symbionts. Nature Ecology & Evolution. 6(8): 1145–1154.

Gao, H., N. Ding, Y. Wu, and G. Coupland. 2026. Ft florigen proteins in photoperiodic signaling: conservation and diversity in their regulation, structure, and function. Molecular Plant. 19(5): 964–986.

UNIVERSITAS
GADJAH MADA
Korelasi dan Analisis Lintas Beberapa Karakter Hasil Bunga Cosmos sulphureus Cav. pada Kondisi Inokulasi Mikoriza Arbuskular
Syifa Aulia Aninda, Prof. Dr. Ir. Aziz Purwantoro, M.Sc.; Dr. Dyah Weny Respatie, S.P., M.Si.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Gavito, M. E., P. A. Olsson, H. Rouhier, A. Medina-Peñafiel, I. Jakobsen, A. Bago, and C. Azcón-Aguilar. 2005. Temperature constraints on the growth and functioning of root organ cultures with arbuscular mycorrhizal fungi. New Phytologist. 168(1): 179–188.

Hasbi, A. Z. El, R. Damayanti, D. Hermina, dan H. Mizani. 2023. Penelitian korelasional (metodologi penelitian pendidikan). Al-Furqan: Jurnal Agama, Sosial, dan Budaya. 2(6): 784–808.

Heriansyah, P., S. A. Aziz, D. Sukma, and W. Nurcholis. 2025. Optimizing phosphorus application to enhance flowering and phytochemical profiles in black orchid (*Coelogyne pandurata* Lindl.). Ornamental Horticulture. 31: 1–8.

Himanshu, M. Kaur, and H. S. Sohal. 2024. Sulfur cosmos (*C. sulphureus*) - a multifaceted botanical treasure: a review of ethnobotanical knowledge and phytochemical insights. Scopus Indexed Journal. 21(2): 569–612.

Hou, W., Y. Luo, X. Wang, Q. Chen, B. Sun, Y. Wang, Z. Liu, H. Tang, and Y. Zhang. 2018. Effects of shading on plant growth, flower quality and photosynthetic capacity of Rosa hybrida. AIP Conference Proceedings of International Conference on Biotechnology and Bioengineering on London, Inggris.

Hu, X., D. Chen, F. Yan, X. Zheng, X. Fang, Y. Bai, J. Zhao, X. Ma, C. Ma, X. Cai, D. Deng, G. Sun, F. Sun, J. Zhou, and L. Liu. 2024. Global research trends on the effects of arbuscular mycorrhizal fungi on the soil carbon cycle: A bibliometric analysis. Ecological Indicators. 158(111543): 1–13.

Huang, W., D. A. Ratkowsky, C. Hui, P. Wang, J. Su, and P. Shi. 2019. Leaf fresh weight versus dry weight: which is better for describing the scaling relationship between leaf biomass and leaf area for broad-leaved plants? Forests. 10(3): 1–19.

Hui, J., X. An, Z. Li, B. Neuhäuser, U. Ludewig, X. Wu, W. X. Schulze, F. Chen, G. Feng, H. Lambers, F. Zhang, and L. Yuan. 2022. The mycorrhiza-specific ammonium transporter ZmAMT3;1 mediates mycorrhiza-dependent nitrogen uptake in maize roots. Plant Cell. 34(10): 4066–4087.

ITIS. n.d. Report: Cosmos sulphureus. https://www.itis.gov/servlet/SingleRpt/SingleRpt?search_topic=Scientific_Name&search_value=Cosmossulphureus&search_kingdom=every&search_span=exactly_for&categories=All#null. Diakses pada 23 Desember 2025.

Izlin, B. R., Nurrachman, dan M. Isnaini. 2022. Pengaruh topping dan pupuk majemuk NPK terhadap pertumbuhan dan hasil melon (*Cucumis melo* L.). Jurnal Ilmiah Mahasiswa Agrokomplek. 1(1): 57–65.

Jamilah. 2024. Peranan hara bagi pertumbuhan dan hasil tanaman. *In* Ariyanto dan M.I. Al Kutsi (*Ed*s.). Kesuburan Tanah dan Pemupukan. Edisi 1. CV Hei Publishing Indonesia, Padang.

Jiang, K., S. Peng, Z. Yin, X. Li, L. Xie, M. Shen, D. Li, and J. Gao. 2024. Effects of N, P, K nutrition levels on the growth, flowering attributes and functional component *Chrysanthemum morifolium*. Horticulturae. 10(3): 1–13.

UNIVERSITAS
GADJAH MADA
Korelasi dan Analisis Lintas Beberapa Karakter Hasil Bunga Cosmos sulphureus Cav. pada Kondisi Inokulasi Mikoriza Arbuskular
Syifa Aulia Aninda, Prof. Dr. Ir. Aziz Purwantoro, M.Sc.; Dr. Dyah Weny Respatie, S.P., M.Si.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Johny, L., D. M. Cahill, and A. Adholeya. 2021. AMF enhance secondary metabolite production in ashwagandha, licorice, and marigold in a fungi-host specific manner. Rhizosphere. 17(100314): 1–11.

Khamidov, M., J. Ishchanov, A. Hamidov, E. Shermatov, and Z. Gafurov. 2023. Impact of soil surface temperature on changes in the groundwater level. Water. 15(21): 1–16.

Khan, F., A.B. Siddique, S. Shabala, M. Zhou, and C. Zhao. 2023. Phosphorus plays key roles in regulating plants' physiological responses to abiotic stresses. Plants. 12(15): 1–29.

Khoirunnisa, F., P. Murni, and M.E. Sanjaya. 2025. The morphological character and flowering phenology of white jasmine (*Jasminum sambac* (L.) Aiton). Jurnal Penelitian Pendidikan IPA. 11(4): 1133–1140.

Knodel, J., P. Beauzay, and A. Chirumamilla. 2020. Insect pest management. *In* H. Kandel, G. Endres, and R. Buetow (*Eds*.). Sunflower Production Guide. NDSU Extension.

Kokkoris, V. 2026. Mycelial dynamics in arbuscular mycorrhizal fungi. New Phytologist. 249(2): 691–713.

Kurniawan, B., Purnomo, dan R. S. Kasiamdari. 2022. Diversity, abundance, and traditional uses of Asteraceae species in Mount Bisma, Dieng Plateau, Kejajar, Wonosobo, Central Java. Journal of Tropical Biodiversity and Biotechnology. 7(1): 1–15.

Leghari, S. J., N. A. Wahocho, G. M. Laghari, A. H. Laghari, G. M. Bhabhan, K. H. Talpur, and A. Lashari. 2016. Role of nitrogen for plant growth and development: A review. Advances in Environmental Biology. 10(9): 209–218.

Liang, S., X. Wu, and D. Byrne. 2017. Genetic analysis of flower size and production in diploid rose. Journal of the American Society for Horticultural Science. 142(4): 306–313.

Likabu, N.L.M., M.A. Azis, dan S. Arsyad. 2025. Kadar hara nitrogen (N-total) dengan perlakuan pupuk organik dan korelasinya terhadap pertumbuhan dan hasil tanaman kacang tanah (*Arachis hypogaea* L.). JATT. 14(1): 15–22.

Liu, M., H. Wang, Z. Lin, J. Ke, P. Zhang, F. Zhang, D. Ru, L. Zhang, Y. Xiao, and X. Liu. 2024. Arbuscular mycorrhizal fungi inhibit necrotrophic, but not biotrophic, aboveground plant pathogens: A meta-analysis and experimental study. New Phytologist. 241(3): 1308–1320.

Lleras, C. 2005. Path analysis. Encyclopedia of Social Measurement. 3: 25–30.

Maassen, G. H. and A. B. Bakker. 2001. Suppressor variables in path models: Definitions and interpretations. Sociological Methods and Research. 30(2): 241–270.

Mahmoudi, N., M. Mahdhi, R. Abddaiem, K. Bessadok, and M. Mars. 2019. Arbuscular mycorrhizal colonization of selected herbaceous plants under arid protected area in Tunisia. Soil Science and Plant Nutrition. 65(2): 114–121.

UNIVERSITAS
GADJAH MADA
Korelasi dan Analisis Lintas Beberapa Karakter Hasil Bunga Cosmos sulphureus Cav. pada Kondisi Inokulasi Mikoriza Arbuskular
Syifa Aulia Aninda, Prof. Dr. Ir. Aziz Purwantoro, M.Sc.; Dr. Dyah Weny Respatie, S.P., M.Si.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Mason, C. M., E. W. Goolsby, K. E. Davis, D. V. Bullock, and L. A. Donovan. 2017. Importance of whole-plant biomass allocation and reproductive timing to habitat differentiation across the North American sunflowers. Annals of Botany. 119(7): 1131–1142.

Mathur, S., R. Agnihotri, M. P. Sharma, V. R. Reddy, and A. Jajoo. 2021. Effect of high-temperature stress on plant physiological traits and mycorrhizal symbiosis in maize plants. Journal of Fungi. 7(10): 1–18.

Moin, K. 2026. How to Plant and Care for *Cosmos sulphureus*? Homestead Gardener. https://homesteadgardener.com?utm_source=chatgpt.com. Diakses pada 20 Juni 2026.

Nehls, U. 2008. Mastering ectomycorrhizal symbiosis: The impact of carbohydrates. Journal of Experimental Botany. 59(5): 1097–1108.

Newsom, J.T. 2025. Basics of path analysis: Wright's rules of tracing and the fundamentals of path analysis.

Nopriandi, Savilla, S. A., B. C. Dewi, dan L. H. S. Putro. 2024. Analisis kandungan C-organik dan dampaknya terhadap kesuburan tanah di kawasan hutan dengan tujuan khusus Kemampo Banyuasin. Prosiding Seminar Nasional Biologi. 4(2): 1111–1121.

Nugraha, D. S. dan M. Azizah. 2024. Respon pertumbuhan dan produksi benih kenikir (*Cosmos sulphureus* Cav.) terhadap dosis pupuk nitrogen dan jarak tanam. AGRORADIX: Jurnal Ilmu Pertanian. 7(2): 12–20.

Nugraha, M. S. A., Y. P. Situmeang, dan D. K. T. Sukmadewi. 2025. Application of arbuscular mycorrhiza and organic fertilizer on the growth and yield of marigold (*Tagetes erecta* L.). Agriwar Journal. 5(2): 58–63.

Nuraini, S. P. 2025. Pengaruh Ketinggian Tempat dan Konsentrasi Biostimulan Asam Amino terhadap Pertumbuhan dan Hasil Steviosida Tanaman Stevia (S*tevia rebaudiana* Bertoni). Fakultas Pertanian. Universitas Gadjah Mada. Skripsi.

Nurhaswinda, Pratasya, M., Q. L. Nada, T. R. Nanda, H. Neftihana, S. Harnida, U. Pratiwi, A. Mauluddin, S. Taskia, dan V. Alpenita. 2025. Penelitian korelasi. Pediaqu: Jurnal Pendidikan Sosial dan Humaniora. 4(2): 2644–2655.

Nuridayati, S.S., B. Prasetya, dan S. Kurniawan. 2019. Perbanyakan berbagai jenis mikoriza arbuskula di berbagai jenis tanaman inang. Jurnal Tanah dan Sumberdaya Lahan. 6(2): 1375–1385.

Ouzounidou, G., V. Skiada, K. K. Papadopoulou, N. Stamatis, V. Kavvadias, E. Eleftheriadis, and F. Gaitis. 2015. Effects of soil ph and arbuscular mycorrhiza (am) inoculation on growth and chemical composition of chia (*Salvia hispanica* L.) leaves. Revista Brasileira de Botanica. 38(3): 487–495.

Pabuayon, I. L. B., J. J. B. Bicaldo, Z. A. Alemar, I. C. M. Pabuayon, and G. L. Ritchie. 2025. Dynamics of source-sink relationships in crops under marginal environments. Current Plant Biology. 44: 100563.

Panjaitan, N. 2019. Inventarisasi Suku Asteraceae di Sepanjang Aliran Sungai Stasiun

UNIVERSITAS
GADJAH MADA
Korelasi dan Analisis Lintas Beberapa Karakter Hasil Bunga Cosmos sulphureus Cav. pada Kondisi Inokulasi Mikoriza Arbuskular
Syifa Aulia Aninda, Prof. Dr. Ir. Aziz Purwantoro, M.Sc.; Dr. Dyah Weny Respatie, S.P., M.Si.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Penelitian Sikundur, Taman Nasional Gunung Leuser. Universitas Negeri Medan. Skripsi (Abstr.).

Panwar, S., K. P. Singh, Namita, T. Janakiram, and C. Bharadwaj. 2014. Character association and path coefficient analysis in African marigold (*Tagetes erecta* L.). Vegetos. 27(1): 26–32.

Patimah, Zulpan, D. U. Alfansuri, E. Munawaroh, dan M. Ilyas. 2025. Memahami dan menerapkan uji korelasi dalam analisis data penelitian pendidikan. Journal Education Innovation (JEI). 3(4): 740–752.

Permanasari, I., K. Dewi, M. Irfan, dan A. T. Arminudin. 2016. Peningkatan efisiensi pupuk fosfat melalui aplikasi mikoriza pada kedelai. Jurnal Agroteknologi. 6(2): 23–30.

Purwantoro, A., T. Swandari, D. W. Respatie, W. D. Sawitri, and R. H. Murti. 2024. Evaluation of phenotypic characters and total phenol content in T1 putative transgenic yellow cosmos (*Cosmos sulphureus* Cav.) with SoSPS1 transgene. Indian Journal of Biochemistry and Biophysics. 61(11): 704–713.

Putri, R. S. dan A. G. Pinaria. 2020. Penggunaan kompos *Chromolaena odorata* untuk meningkatkan kalium tanah. Jurnal Agroekoteknologi Terapan. 1(1): 15–17.

Qin, M., L. Li, J. P. Miranda, Y. Tang, B. Song, M. K. Oosthuizen, and W. Wei. 2022. Experimental duration determines the effect of arbuscular mycorrhizal fungi on plant biomass in pot experiments: A meta-analysis. Frontiers in Plant Science. 13: 1–11.

Respatie, D. W., P. Yudono, A. Purwantoro, and Y. A. Trisyono. 2019. The potential of *Cosmos sulphureus* flower extract as a bioherbicide for *Cyperus rotundus*. Biodiversitas. 20(12): 3568–3574.

Řezáčová, V., R. Slavíková, T. Konvalinková, M. Hujslová, H. Gryndlerová, M. Gryndler, D. Püschel, and J. Jansa. 2017. Imbalanced carbon-for-phosphorus exchange between European arbuscular mycorrhizal fungi and non-native Panicum grasses—a case of dysfunctional symbiosis. Pedobiologia. 62: 48–55.

Saedi, Z., & Nemati, A. 2017. Relationship between temperature and developmental rate of Schizotetranychus smirnovi (*Tetranychidae*) on almond. International Journal of Acarology. 43(2): 142–146.

Safei, M., A. Rahmi, dan N. Jannah. 2014. Pertumbuhan dan hasil tanaman terung (*Solanum melongena* L.) varietas Mustang F-1. AGRIFOR. 13(1): 59–66.

Saleh, I., S. A. Aziz, M. Melati, and N. Andarwulan. 2023. Morpho-physiology and metabolite content of *Cosmos caudatus* Kunth and yellow and orange *Cosmos sulphureus* Cav. Biodiversitas. 24(10): 5739–5746.

Saleh, I., U. Trisnaningsih, D. D. Dwirayani, R. M. Syahadat, dan I. S. W. Atmaja. 2020. Analisis preferensi konsumen terhadap dua spesies kenikir; Cosmos caudatus dan Cosmos sulphureus. MAHATANI: Jurnal Agribisnis. 3(1): 195–203.

Sari, D. A., S. Sulistiono, dan A. M. Santoso. 2022. Tipe perbungaan Asteraceae di Air Terjun Irenggolo Kediri. Efektor. 9(2): 199–205.

UNIVERSITAS
GADJAH MADA
Korelasi dan Analisis Lintas Beberapa Karakter Hasil Bunga Cosmos sulphureus Cav. pada Kondisi Inokulasi Mikoriza Arbuskular
Syifa Aulia Aninda, Prof. Dr. Ir. Aziz Purwantoro, M.Sc.; Dr. Dyah Weny Respatie, S.P., M.Si.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Sarwono, J. 2011. Mengenal path analysis: sejarah, pengertian, dan aplikasi. Jurnal Ilmiah Manajemen Bisnis. 11(2): 285–296.

Selvanus, Syafril, H. As-syahri, H. Susanto, Wahyudi, dan Syaifullah. 2024. Path analysis of factors that influence students in choosing a study program to get to their dream job. Jurnal Ekonomi. 13(1): 2278–2290.

Shabir, P. A., I. A. Nawchoo, and A. A. Wani. 2017. A performance appraisal of size dependent reproduction and reproductive allocation: a case study of two Inula species from Kashmir Himalaya. Russian Journal of Ecology. 48(5): 440–448.

Shi, J., X. Wang, and E. Wang. 2023. Mycorrhizal symbiosis in plant growth and stress adaptation: from genes to ecosystems. Annual Review of Plant Biology. 74: 569–607.

Sineri, C. N. M., L. N. Krimadi, I. Salim, Y.I. Mandik, dan Y. B. J. Rusmanta. 2025. Pengaruh kadar air terhadap tingkat keasaman tanah Kampung Burmeso secara elektrometri. Journal Scientific of Mandalika. 6(6): 1533–1540.

Sinurat, T.E.N., A. Purwantoro, dan D.W. Respatie. 2021. Aplikasi daminozide dalam upaya pembentukan kenikir (*Cosmos sulphureus* Cav.) menjadi tanaman hias pot. Vegetalika. 10(3): 191–203.

Smith, S. E., and D. Read. 2008. Mycorrhizal Symbiosis. Third Edition. Elsevier, London.

Sokornova, S., D. Malygin, A. Terentev, and V. Dolzhenko. 2022. Arbuscular mycorrhiza symbiosis as a factor of Asteraceae species invasion. Agronomy. 12(12): 1–16.

Stommel, J. R., and R. J. Griesbach. 2008. Inheritance of fruit, foliar, and plant habit attributes in Capsicum. Journal of the American Society for Horticultural Science. 133(3): 396–407.

Sugiyono. 2013. Metode Penelitian Kuantitatif, Kualitatif dan R&D. CV Alfabeta, Bandung.

Sulaeman, Suparto, dan Eviati. 2005. Petunjuk Teknis Analisis Kimia Tanah, Tanaman, Air dan Pupuk. Balai Penelitian Tanah, Bogor.

Sulistyo, W., Subanar, and R. Pulungan. 2018. Development of a spatial path-analysis method for spatial data analysis. International Journal of Electrical and Computer Engineering. 8(4): 2456–2467.

Sun, D., X. Yang, Y. Wang, Y. Fan, P. Ding, X. Song, X. Yuan, and X. Yang. 2022. Stronger mutualistic interactions with arbuscular mycorrhizal fungi help Asteraceae invaders outcompete the phylogenetically related natives. New Phytologist. 236(4): 1487–1496.

Thirkell, T. J., D. Pastok, and K. J. Field. 2020. Carbon for nutrient exchange between arbuscular mycorrhizal fungi and wheat varies according to cultivar and changes in atmospheric carbon dioxide concentration. Global Change Biology. 26(3): 1725–1738.

Tuheteru, F. D., dan Husna. 2012. Pertumbuhan dan biomassa *Albizia saponaria* yang

UNIVERSITAS
GADJAH MADA
Korelasi dan Analisis Lintas Beberapa Karakter Hasil Bunga Cosmos sulphureus Cav. pada Kondisi Inokulasi Mikoriza Arbuskular
Syifa Aulia Aninda, Prof. Dr. Ir. Aziz Purwantoro, M.Sc.; Dr. Dyah Weny Respatie, S.P., M.Si.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

diinokulasi fungi arbuskula mikoriza lokal Sulawesi Tenggara. Silvikultur Tropika - Journal of Tropical Silviculture Science and Technology. 2(3): 143–148.

USDA, A. R. S. National Plant Germplasm System. 2026. https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomydetail?id=11684. Diakses pada 3 Maret 2026.

Valenzuela, S., and I. Bachmann. 2017. Path analysis. *In* J. Matthes, C. S. Davis, and R.F. Potter (*Eds*.). The International Encyclopedia of Communication Research Methods. John Wiley & Sons Inc., Hoboken.

van Tongerlo, E., W. van Ieperen, J. A. Dieleman, and L. F. M. Marcelis. 2021. Vegetative traits can predict flowering quality in *Phalaenopsis orchids* despite large genotypic variation in response to light and temperature. PLoS ONE. 16: 1–22.

Visalakshi, M., R. Muthulakshmi, M. Ganga, S. P. Thamaraiselvi, S. Ganesh, and S. Vasanth. 2024. Studies on correlation analysis, path analysis and genetic diversity in rose (*Rosa* spp.). Plant Science Today. 11(3): 785–791.

Wahab, A., M. Muhammad, A. Munir, G. Abdi, W. Zaman, A. Ayaz, C. Khizar, and S.P.P. Reddy. 2023. Role of arbuscular mycorrhizal fungi in regulating growth, enhancing productivity, and potentially influencing ecosystems under abiotic and biotic stresses. Plants. 12(17): 1–40.

Wang, J., Y. Tan, M. Liao, L. Lin, Y. Tang, H. Zhang, H. Xia, D. Liang, Q. Deng, X. Lv, C. Chen, and W. Ren. 2019. Self-rooted grafting influences the growth and cadmium accumulation characteristics in the post generation of *Cosmos sulphureus*. Environmental Science and Pollution Research. 26(26): 26822–26828.

War, A. R., M. G. Paulraj, T. Ahmad, A. A. Buhroo, B. Hussain, S. Ignacimuthu, and H.C. Sharma. 2012. Mechanisms of plant defense against insect herbivores. Plant Signaling and Behavior. 7(10): 1306–1320.

Warganegara, G. R., Y. C. Ginting, dan K. Kushendarto. 2017. Pengaruh konsentrasi nitrogen dan plant catalyst terhadap pertumbuhan dan hasil tanaman selada (*Lactuca sativa* L.) secara hidroponik. Jurnal Penelitian Pertanian Terapan. 15(2): 100–106.

Wisnubroto, M. P., A. Armansyah, A. Anwar, dan D. Suhendra. 2024. Eksplorasi dan identifikasi fungi mikoriza arbuskular (fma) serta karakteristik tanah lahan pasca tambang batu bara pada tingkat kelerengan berbeda di Kecamatan Talawi, Kota Sawahlunto. Jurnal Agrikultura. 35(1): 112–125.

Xia, Y., J. Feng, H. Zhang, D. Xiong, L. Kong, R. Seviour, and Y. Kong. 2024. Effects of soil pH on the growth, soil nutrient composition, and rhizosphere microbiome of Ageratina adenophora. PeerJ. 12(4): 1–22.

Xu, Y. H., L. Dang, Y. F. Bai, and Y. J. Wang. 2025. Arbuscular mycorrhizal fungi increase tolerance of fruit trees to abiotic and biotic stresses: A meta analysis. Applied Soil Ecology. 214: 1-11.

Yuda, A. I., R. T. Purnamasari, and S. H. Pratiwi. 2018. Efek pemangkasan pucuk bibit dan dosis nitrogen terhadap pertumbuhan dan produksi tanaman cabai merah kering (*Capsicum annuum* L.). Jurnal Agroteknologi Merdeka Pasuruan. 2(2): 16–22.

Yurisman, Burhanuddin, dan Wahdina. 2015. Asosiasi fungi mikoriza arbuskula (fma)

UNIVERSITAS
GADJAH MADA
Korelasi dan Analisis Lintas Beberapa Karakter Hasil Bunga Cosmos sulphureus Cav. pada Kondisi Inokulasi Mikoriza Arbuskular
Syifa Aulia Aninda, Prof. Dr. Ir. Aziz Purwantoro, M.Sc.; Dr. Dyah Weny Respatie, S.P., M.Si.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

pada tanaman bintaro (*Cerbera manghas* L.) di tanah aluvial. Hutan Lestari. 3(4): 551–560.

Yuwati, T. W., Atinah, dan I. Witiyasti, I. 2021. Enhancing sengon seedling's growth by using indigenous arbuscular mycorrhiza from tropical peatland. Jurnal Galam. 1(2): 93–107.

Zaid, M. A. 2015. Correlation and regression analysis. The Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC).

Zhao, D., Z. Hao, and J. Tao. 2012. Effects of shade on plant growth and flower quality in the herbaceous peony (*Paeonia lactiflora* Pall.). Plant Physiology and Biochemistry. 61: 187–196.

Zhou, Y., X. Zou, F. Yan, J. He, S. Zeng, Y. Yu, X. Tang, X. Liang, X. Cai, R.Yu, and Y. Fan. 2024. Phenotypic variation in flower color and morphology in the gerbera (*Gerbera hybrida*) f1 hybrid population and their association with est-ssr markers. International Journal of Molecular Sciences. 25(1): 1–16.